

Radiflam® A RV500 AF 375 BK

Radici Group High Performance Polymers - Polyamide 66

General Information

Product Description

PA66 flame retardant injection moulding grade with red phosphorus. 50% glass fiber reinforced. Heat stabilized, improved impact properties. Black colour.

Suitable for parts requiring fire retardancy along with high stiffness and mechanical resistance. Rated V-0 at 0.8 mm according to UL-94.

General

| | |
|------------------------|---|
| Material Status | • Commercial: Active |
| Availability | • Africa & Middle East • Europe • North America • Asia Pacific • Latin America |
| Filler / Reinforcement | • Glass Fiber, 50% Filler by Weight |
| Additive | • Flame Retardant • Heat Stabilizer |
| Features | • Flame Retardant • Heat Stabilized • Good Impact Resistance • High Stiffness |
| Agency Ratings | • EU 2011/65/EC |
| RoHS Compliance | • RoHS Compliant |
| Appearance | • Black |
| Processing Method | • Injection Molding |
| Resin ID (ISO 1043) | • PA66 GF50 FR(52) |

Properties ¹

| Physical | Dry | Conditioned | Unit | Test Method |
|---|---------|-------------|-----------------------|----------------|
| Density | 1.62 | -- | g/cm ³ | ISO 1183 |
| Molding Shrinkage ² | | | | ISO 294-4 |
| Across Flow | 0.60 | -- | % | |
| Flow | 0.20 | -- | % | |
| Water Absorption (Saturation, 73°F, 0.0787 in) | 3.8 | -- | % | ISO 62 |
| Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH) | 0.80 | -- | % | ISO 62 |
| Mechanical | Dry | Conditioned | Unit | Test Method |
| Tensile Modulus | 2.45E+6 | 1.83E+6 | psi | ISO 527-1/1A/1 |
| Tensile Stress (Break) | 30500 | 21800 | psi | ISO 527-2/1A/5 |
| Tensile Strain (Break) | 2.6 | 3.2 | % | ISO 527-2/1A/5 |
| Flexural Modulus ³ | 2.25E+6 | -- | psi | ISO 178 |
| Flexural Stress ³ | 46400 | -- | psi | ISO 178 |
| Impact | Dry | Conditioned | Unit | Test Method |
| Charpy Notched Impact Strength (73°F) | 6.2 | 8.6 | ft·lb/in ² | ISO 179/1eA |
| Charpy Unnotched Impact Strength (73°F) | 40 | 43 | ft·lb/in ² | ISO 179/1eU |
| Thermal | Dry | Conditioned | Unit | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 482 | -- | °F | ISO 75-2/Af |
| Melting Temperature ⁴ | 500 | -- | °F | ISO 11357-3 |
| Electrical | Dry | Conditioned | Unit | Test Method |
| Surface Resistivity (500 V) | 1.0E+12 | 1.0E+10 | ohms | IEC 62631-3-2 |
| Volume Resistivity (500 V) | 1.0E+13 | 1.0E+11 | ohms·m | IEC 62631-3-1 |
| Comparative Tracking Index (Solution A) | 500 | -- | V | IEC 60112 |
| Flammability | Dry | Conditioned | Unit | Test Method |
| Flame Rating (0.031 in) | V-0 | -- | | UL 94 |
| Glow Wire Flammability Index | | | | IEC 60695-2-12 |



| | | | |
|--------------------------------|------|----|----------------|
| 0.04 in | 1760 | -- | °F |
| 0.08 in | 1760 | -- | °F |
| Glow Wire Ignition Temperature | | | IEC 60695-2-13 |
| 0.04 in | 1380 | -- | °F |
| 0.08 in | 1430 | -- | °F |

Processing Information

| Injection | Dry Unit |
|--------------------------------------|---------------|
| Drying Temperature - Desiccant Dryer | 176 °F |
| Drying Time - Desiccant Dryer | 2.0 to 4.0 hr |
| Dew Point - Desiccant Dryer | < -4 °F |
| Suggested Max Moisture | 0.10 % |
| Processing (Melt) Temp | 536 to 572 °F |
| Mold Temperature | 176 to 212 °F |
| Injection Rate | Moderate-Fast |

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² 280°C Melt Temperature, 80°C Mold Temperature, 60 MPa Cavity Pressure
- ³ 0.079 in/min
- ⁴ 10°C/min

